

SELECTIVE TREATMENT FOR SELECTIVE PATIENTS

THE ROLE OF IMMUNOADSORTION IN SYSTEMIC ERYTHEMATOSUS LUPUS

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Objective

The apheresis method is used for the removal of substances namely lipoproteins, antibodies, immune complexes or toxins from the blood. **Immunoadsorption (IA)** is a selective apheresis method, able to remove specific antibodies and immune complexes obviating the use of plasma replacement. This technique can remove immunoglobulin from the intravascular compartment in particular IgG and IgM. **Systemic Lupus Erythematosus (SLE)** pathogenesis is probably related to various antibodies. Immunoadsorption provides a method for effectively remove them, representing an interesting treatment for SLE.

Methods

We describe our experience with the use of IA treating two severe cases of SLE in female patients.

	Patient A	Patient B
Age / SLE initial diagnose	47 year-old / 1992	54 year-old / 2010
Previously treatment	Prednisolone, Methotrexate, Immunoglobuline	Prednisolone, Immunoglobuline
IA suggestion	Multiple complications: aseptic meningitis, lupus flare with neurologic and hematologic dysfunction and cytomegalovirus reactivation	Avoid immunosuppression increased dose
Clinical presentation before IA	Multisystemic lupus flare with neurologic, cardiovascular, hematologic and kidney involvement.	Multisystemic lupus flare with neurologic and hematologic involvement

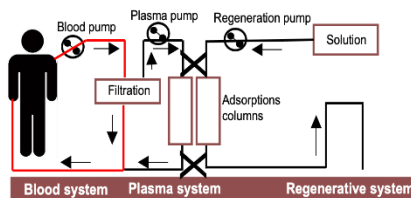


Figure 1- Immunoadsorption scheme of our center.



Figure 2 - Globa ffin® - Fresenius Kabi AG with high binding affinity with antibodies (with a synthetic peptide as a ligand).

Results

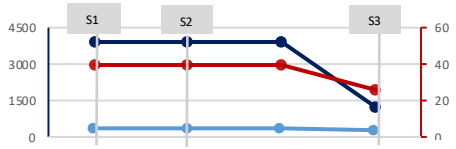


Figure 1 - Immunologic evolution of patient A who performed 3 IA sessions (S1-3)

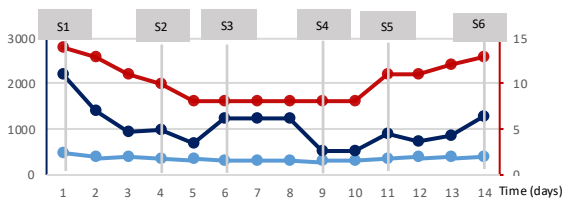


Figure 2 - Immunologic evolution of patient B who performed 6 IA sessions (S1-6)

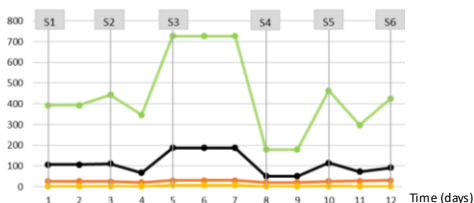


Figure 3 - Specific immunologic evolution of patient B who performed 6 IA sessions (S1-6)

Legend:	IgA (mg/dl)	IgG (mg/dl)	IgM (mg/dl)	IgG1 (mg/dl)	IgG2 (mg/dl)	IgG3 (mg/dl)	IgG4 (mg/dl)
anti ds-DNA	Patient A	67	49				
	Patient B	62	24				
ANA	Patient A	1/320	1/160				
	Patient B	1/1280	1/1280				

Conclusions

The authors want to reinforce the importance of IA in patients presenting with severe SLE, disease worsening despite optimized therapy and high risk of infection with contraindicated additional immunosuppression therapy. In addition, these cases show IA is a relatively secure technique with good results, capable of important reduction of antibodies, without removing any clotting factors (different from plasmapheresis). **We believe that IA plays an important rôle as a treatment option for selected patients diagnosed with severe SLE.** Individualized therapy is at our goal, it may not be the goldstandard therapy but still is a relevant means for clinical improvement with the advantage of selective antibodies clearance without the use of fluid substitution.



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